



**WINCHESTER®**  
AMMUNITION

December 2, 2008

DEPT. OF TRANSPORTATION  
DOCKETS

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Associate Administrator for Hazardous Materials Safety  
Attn: Special Permits, PHH-31  
Pipeline and Hazardous Materials Safety Administration  
U.S. Department of Transportation  
East Building, 1200 New Jersey Avenue, SE  
Washington, DC 20590-0001

Dear Mr. Watson:

Listed below you will find the items required by 49CFR 107.109 for the request of a revision to **DOT-SP 14649**.

1. Company and contact information:

Olin Corporation  
Winchester Division  
427 North Shamrock Street  
East Alton, IL 62024  
Attn: Laura Hamilton  
Supervisor, Logistics  
(618) 258-3439

2. Olin Corporation requests the addition of UN0338, Cartridges, Small arms blank, 1.4C (.50 caliber blank) and UN0339, Cartridges, Small arms, 1.4C (.50 caliber) to this permit. Attached you will find written results and a CD with pictures from the UN 6(c) bonfire test performed by Safety Consulting Engineers, Inc. in Schaumburg, Illinois. This test was conducted on a full tub of .50 caliber M33 ball, (UN0339, Cartridges, Small arms, UN0339, 1.4C).

Please contact me with questions or concerns at (618) 258-3439.

Sincerely,

Laura Hamilton  
Supervisor, Logistics

encl.



# Safety Consulting Engineers, Inc.

2131 Hammond Drive  
Schaumburg, Illinois 60173

Phone: (847) 925-8100, Fax: (847) 925-8120, Email: [info@sceinc.com](mailto:info@sceinc.com), Website: [www.sceinc.com](http://www.sceinc.com)

November 12, 2008

Mr. George Mei  
Senior Engineer Associate  
Olin Corporation  
Winchester Division  
MS Z3250  
427 N. Shamrock Street  
East Alton, Illinois 62024

Report No. 5200897-LR  
SCE No. 2008-136C

Subject: Explosive Hazard Class Evaluation for M33-50 cal ball rounds.

Dear Mr. Mei:

In response to Olin Corporation's Purchase Order Number 4500340222, Safety Consulting Engineers, Inc. (SCE) conducted bonfire testing on a corrugated steel tub (36" x 33" x 18") containing approximately 5470 M33-50 cal ball rounds.

The steel tub loaded with 50 cal ball rounds was tested per United Nations' Recommendations on the Transport of Dangerous Goods, Manual of Tests and Criteria, Fourth Revised Edition, Test Series 6(c).

The purpose of the testing was to determine whether the 1.4C hazard classification (for M33) would apply for the rounds in bulk (tub) for interplant transportation.

## **Test 6(c) External Fire (Bonfire) Test**

The test will determine whether packages of an explosive substance or explosive articles, or unpackaged explosive articles, will exhibit mass explosion or a hazard from dangerous projections, radiant heat and/or violent burning or any other dangerous effect when involved in a fire.

The tub was held on a grid or rod with liquid hydrocarbon pool at the bottom. The fuel pool was remotely ignited and the entire event was monitored via video camera for evidence of detonation, explosion, potentially hazardous projection, intensive fireball, etc.

## **Result:**

No mass explosion or detonation was observed. Steady popping of the rounds was observed. Out of 5470 M33-50 cal ball rounds, one round was found 24-foot away from the burn pan. Only 12 rounds were found out of the burn pan. Some rounds found at the bottom of the pan burned up.

**Conclusion:**

The result of the testing indicated that the rounds in the corrugated steel tub (36" x 33" x 18") did not exhibit mass explosion or detonation therefore the 1.4C explosive classification will apply for rounds in bulk in a tub for interplant transportation.

Respectfully submitted,

SAFETY CONSULTING ENGINEERS, INC.

C. James Dahn  
Principal Process Safety Engineer

CJD/BR/ph

## Appendix 1 - Legal Disclaimer and Liability

- (a) Limitation of Liability. The test procedures and/or consulting services conducted by Chilworth Technology (the "Company") were performed under controlled laboratory conditions, which the Company considers reliable. Although the Company performed its testing services pursuant to reliable and generally accepted testing procedures in the industry, the Company does not guarantee or provide any representations or warranties with respect to Client's use, interpretation or application of the test results and/or consulting services provided by the Company. Moreover, the results of the testing procedures are based upon certain assumptions, information, documents, and procedures provided by the Customer. AS SUCH, IN NO EVENT AND UNDER NO CIRCUMSTANCE SHALL THE COMPANY BE LIABLE FOR SPECIAL, INDIRECT, PUNITIVE OR CONSEQUENTIAL DAMAGES OF ANY NATURE WHATSOEVER, INCLUDING WITHOUT LIMITATION, ANY LOST REVENUE OR PROFITS OF THE CUSTOMER OR ITS CUSTOMERS, AGENTS AND DISTRIBUTORS, RESULTING FROM, ARISING OUT OF OR IN CONNECTION WITH, THE SERVICES PROVIDED BY THE COMPANY OR THE RESULTS OF ANY TESTS PERFORMED BY THE COMPANY. The Customer agrees that the Company shall have no liability for damages which may result from Client's use, interpretation or application of the test results and/or consulting services provided by the Company.
- (b) The Company's pricing of the testing services provided does not contemplate that the Company shall have any liability resulting from its performance of the testing procedures, except as otherwise set forth in the Quotation from the Company. Accordingly, the Customer shall indemnify and hold harmless the Company, its shareholders, directors, officers, employees and agents (the "Indemnified Parties") from and against any and all loss, cost, liability and expense, including reasonable attorney's fees and costs, which any of the Indemnified Parties may incur, sustain or be subject to, as a result of any claim, demand, action, investigation or proceeding arising out of or relating to either: (a) the testing services provided by the Company; or (b) any material, equipment, specifications or safety information (or lack thereof) supplied to the Company (or which should have been supplied to the Company) by Customer and/or any failure of such materials, equipment, specifications and safety information to comply with any federal, state or local law or safety standard.
- (c) For additional terms and conditions which apply with respect to the provision of this report, see the Quotation provided by the Company and executed by Customer. If any terms set forth in the Quotation conflict with the terms set forth herein, the terms set forth herein shall apply.